State FFA Forestry Career Development Event

FORMAT

The State FFA Forestry Career Development Event will be conducted for teams of up to four contestants from each participating chapter of whose scores the top **FOUR** will be counted. Participants must come prepared to work outside in adverse weather conditions. They should have **heavy coats**, other warm clothes, **rain gear and footwear**. Contestants; are expected to bring their own clipboards, pencils and calculators.

EVENT RULES

1. No team member or team coach shall visit the event facilities to observe plant materials and facilities after May 1. Any team, team member or coach reported and proven to do so will cause the elimination of that team from competing in the State Forestry Career Development event.

2. **Tools and Equipment:** All tools and equipment will be furnished for the event. Participants must use the tools and equipment furnished at the event site.

3. **Written Materials:** All written materials will be furnished for the event. No written materials such as tests, problems and worksheets shall be removed from the event site.

PHASE I: BASIC KNOWLEDGE AND CONCEPTS
GENERAL KNOWLEDGE EXAM (100 POINTS)

Forty-five objective-type multiple-choice questions and five photo or sample identifications of common tree disease/damage agents will be selected from areas of the forestry industry reflected in the event objectives. This phase of the event will test participant's knowledge and understanding of basic principles of forestry.

TIME: Each individual will be allowed 30 minutes to complete this phase of the event.

SCORING: Each answer has a value of two points, for a total maximum score of 100 points.

POSSIBLE TYPES OF TREE DISEASE / DAMAGE AGENTS

Aphid (inc. Adelgid Aphid)
Beetles
Butt or heart rot
Canker
Chemical damage
Cicada
Damping off
Fire damage
Girdling
Gypsy moth
Ice damage
Leaf spot
Lightning damage
Mechanical logging/construction damage
Needle cast
Nematode
Rust
Sawfly
Scale
Spider mite
Spruce budworm
Sunscald
Tent caterpillar
Wetwood or slime slug
Wind damage
Woodborer

PHASE II: TREE IDENTIFICATION (90 POINTS)

Fifteen to twenty five specimens from the following list will be displayed for participants to identify by common names. Each specimen will be designated by a number.

TIME: Each participant will be allowed 30 minutes to complete this phase, or approximately two minutes for each specimen station.

SCORING: Five points will be given for each specimen that is correctly identified.

LIST OF POSSIBLE SPECIMENS

Alder
Apple
Balsam Fir
Balsam Poplar
Beech
Big Tooth Aspen
Black Ash
Black Walnut
Box elder/Ashleaf Maple
Cherry
Cottonwood
Eastern Hophornbeam
Elm
Gray Birch
Hemlock
Northern White Cedar
Norway Spruce
Quaking Aspen
Red Cedar
Red Maple
Red Oak
Red Pine
Service Berry,Shad Bush
Spruce
Striped Maple
Sugar Maple
Tamarack / Larch
White Ash
White Birch
White Oak
White Pine
Willow
Yellow Birch

PHASE III: EQUIPMENT IDENTIFICATION and MAP INTERPETATION (125 points)

A – Equipment Identification

15 pieces of equipment from the following list will be displayed for participants to identify by technical names. Each piece of equipment, or part referred to, will be designated by number. A model tree stump may also be included from which participants will be expected to identify certain features. (a handy reference for this test is either a Forestry Suppliers or Ben Meadows catalog)

TIME: Each participant will be allowed 15 minutes to complete this portion of the phase III.

SCORING: 5 points for each correct answer - total 75 points.

LIST OF POSSIBLE SPECIMENS

Abney Level
Altimeter
Back Tank Fire Pump
Bark Gauge
Boom-Delimber
Brand Hammer
Cable Skidder
Canthook
Chaps
Clambunk Skidder
Clinometer
Data Recorder
Densiometer
Diameter Tape
Dot Grid
Drip Torch
Ear Protectors
Feller Forwarder
Fiberglass Measuring Tape
Fire Rake
Fire-Swatter
Fire Weather Kit
Flow/Current Meter
Forwarder
Grapple Skidder
GPS Receiver
Hand Compass
Hand Lens/Field
Hip Chain
Hypo-Hatchet
Increment Borer
In-Woods Delimber
Jacob Staff
Knuckle Boom Loader
Log rule
Logger s Tape
pH Meter
Planimeter
Plant Press
Plastic Flagging
Processor
Pulaski Forester Axe
Pull-Through Delimber
Relaskop
Safety Glasses
Safety Hard Hat
Scale Stick
Self-Propelled Loader
Slasher
Soil Sampler
Soil Test Kit (some type)
Staff Compass
Stereoscope
Survey Instrument (some type)
Tally Book
Tally Meter
Target
Timber Scribe
Tracked Feller-Buncher (Harvester)
Tracked Skidder
Tree Caliper
Tree Injector
Tree Marking Gun
Tree Planting Hoe or Bar
Tree Stick
Water Sampler
Water Test Kit
Wedge Prism
Wheeled Caliper
Wheeled Feller-Buncher (Harvester)
Whole Tree Chipper

B - MAP INTERPRETATION - TEAM EVENT

1. Participants will be furnished a United States Geological Survey topographical map with specific points marked to be identified. The participant shall know legal description, recognize topographic map symbols, understand the meaning of map symbols and size and location of 40 acres or more in a section. Participants shall also need to be able to refer to map to provide information on distance, direction and/or elevation.

2. Ten points on the map will be clearly marked with a number or arrow pointing to the section, symbol, or area on the map to be identified.

3. Legal descriptions will be written or described according to the following:

NW	**Northwest**
T	**Township**
SE	**Southeast**
R	**Range**
S	**Section (640)**
1/4	**Quarter of a section (160acres)**

Time: Participants will have 15 minutes to complete this portion of phase III

Scoring: 15 team points will be awarded for each correct answer – total score 150 pts.

PHASE IV: COMPASS PRACTICUM

The participant will use a hand compass and pacing to the nearest full foot to simulate the determination of the property lines on a tract of timber. The compass course will have five marked points. The student will start at any point and record the compass reading and distance to the next point. Azimuth readings shall be recorded.

Time limit: 30 minutes.

SCORING

10 points will be awarded (5 for correct distance and 5 for correct direction) for the compass position (50 points total).

PHASE V: CHAINSAW PART IDENTIFICATION, TROUBLE SHOOTING AND SAFETY

A. Chainsaw Part Identification. Each participant will identify parts of a chainsaw. These parts will be labeled on a saw or will be removed from the saw. Possible parts include (but are not limited to):

Spark plug
Throttle
Throttle safety catch
Choke
Chain catcher
Chain brake
Bar
Air filter
Parts of a saw tooth

B. Chainsaw Troubleshotting. The participant will identify "problems" or "troubles." Each station will have a part, component, saw or written situation with problem areas clearly marked. The participant may pick up parts or touch the saw. Some example faults would include:

Worn out anti-vibration mounts
Worn out chain
Work out spark plug
Missing throttle safety catch
Worn out muffler
No spark screen in the muffler

C. Chainsaw Safety. Students will view video showing someone using chainsaw and will afterwards have to identify any unsafe practices featured.

TIME: Each participant will be allowed up to 1 hour to complete safety parts A-C

SCORING: A total of 100 points are possible for Parts A-C.